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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

KERR, KATHLEEN M

ART UNIT PAPER NUMBER

1652

DATE MAILED: 01/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/942,025	<b>Applicant(s)</b> JULIEN, BRYAN	
	<b>Examiner</b> Kathleen M Kerr	<b>Art Unit</b> 1652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1)  Responsive to communication(s) filed on 16 July 2003.
- 2a)  This action is **FINAL**.                      2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4)  Claim(s) 1-3 is/are pending in the application.  
    4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5)  Claim(s) \_\_\_\_\_ is/are allowed.
- 6)  Claim(s) \_\_\_\_\_ is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claim(s) 1-3 are subject to restriction and/or election requirement.

**Application Papers**

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.  
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
    a)  All    b)  Some \*    c)  None of:  
    1.  Certified copies of the priority documents have been received.  
    2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
    3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
    \* See the attached detailed Office action for a list of the certified copies not received.
- 13)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
    a)  The translation of the foreign language provisional application has been received.
- 14)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other:  |

## DETAILED ACTION

### *Application Status*

1. Claims 1-3 are pending in the instant application.

### *Restriction*

2. Restriction to one of the following inventions is required under 35 U.S.C. § 121:
  - I. Claims 1-3, drawn to vector comprising the entire *tmbA* gene cluster and methods of making a *tmbA* polyketide synthase, classified in class 435, subclass 183.
  - II. Claim 1, drawn to a vector comprising all or a portion of ORF1 (SEQ ID NO:2), classified in class 435, subclass 320.1.
  - III. Claim 1, drawn to a vector comprising all or a portion of ORF2a (SEQ ID NO:4), classified in class 435, subclass 320.1.
  - IV. Claim 1, drawn to a vector comprising all or a portion of ORF2b (SEQ ID NO:6), classified in class 435, subclass 320.1.
  - V. Claim 1, drawn to a vector comprising all or a portion of ORF3 (SEQ ID NO:8), classified in class 435, subclass 320.1.
  - VI. Claim 1, drawn to a vector comprising all or a portion of ORF4 (SEQ ID NO:10), classified in class 435, subclass 320.1.
  - VII. Claim 1, drawn to a vector comprising all or a portion of *tmbA* (SEQ ID NO:12), classified in class 435, subclass 320.1.
  - VIII. Claim 1, drawn to a vector comprising all or a portion of *tmbB* (SEQ ID NO:14), classified in class 435, subclass 320.1.
  - IX. Claim 1, drawn to a vector comprising all or a portion of *tmbC* (SEQ ID NO:16), classified in class 435, subclass 320.1.
  - X. Claim 1, drawn to a vector comprising all or a portion of ORF5a (SEQ ID NO:18), classified in class 435, subclass 320.1.
  - XI. Claim 1, drawn to a vector comprising all or a portion of ORF5b (SEQ ID NO:20), classified in class 435, subclass 320.1.
  - XII. Claim 1, drawn to a vector comprising all or a portion of ORF6 (SEQ ID NO:22), classified in class 435, subclass 320.1.
  - XIII. Claim 1, drawn to a vector comprising all or a portion of ORF7 (SEQ ID NO:24), classified in class 435, subclass 320.1.
  - XIV. Claim 1, drawn to a vector comprising all or a portion of ORF8 (SEQ ID NO:26), classified in class 435, subclass 320.1.

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3. The inventions are distinct, each from the other because of the following reasons:

4. Group I and Groups II-XIV are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (M.P.E.P. § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because each subcombination is drawn to as little as "a portion" of a gene in the *tmbA* gene cluster, which can be interpreted as as few as a single nucleotide of ORF3, for example. While the combination requires SEQ ID NO:1 (the entire gene cluster sequence), it does not require any particular single nucleotide per se. The subcombination has separate utility such as ORF6 acting as a DNA encoding an epoxide hydroxylase that can utilize substrates other than those of the PKS. Thus, Group I is patentably distinct from each of Groups II-XIV. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Groups II-XIV are all related to each other as open reading frames in the *tmbA* gene cluster. However, they are distinct inventions because they distinct structures (sequences) and functions (encoding proteins of distinct functions). Thus, Groups II-XIV are patentably distinct, each from the other. Because these inventions are distinct for the reasons given above and the search required for any one Group is not required for any other Group based on the distinct structures, restriction for examination purposes as indicated is proper.

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*Election*

5. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 C.F.R. § 1.143).

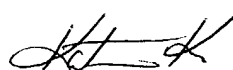
Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 C.F.R. § 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 C.F.R. § 1.48(b) and by the fee required under 37 C.F.R. § 1.17(i).

*Conclusion*

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kathleen M Kerr whose telephone number is (703) 305-1229. The examiner can normally be reached on Monday through Friday, from 9:00am to 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathupura Achutamurthy can be reached on (703) 308-3804. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.



Kathleen M Kerr  
Examiner  
Art Unit 1652

January 15, 2004